

# SMOKE SIGNALS

*For Radio Amateurs • By Radio Amateurs*

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## It's 75 ARRL years for W9BZU

By Don Michalski, W9IXG,  
Wisconsin Section Manager, ARRL



Chuck Scholten, W9BZU, center, is the "man of the hour" as he accepts his 75-year membership plaque from the ARRL. At left is Wisconsin SM Don Michalski, W9IXG, and at right is the "legend of the Cobia", Fred Neuenfeldt, W6BSF.

Photo courtesy Don Michalski, W9IXG

It was a great pleasure for me to attend the award ceremony for W9BZU, Chuck Scholten, on his 75th anniversary on being an ARRL member. I was joined by good friends Roy, K9FHI, and Beryl, KA9-BAC and about 20 members of the ManCoRad club at Chuck's home. Chuck received his 75 year emblem from the ARRL to put on his membership award plaque and a very nice framed letter of appreciation from ARRL Executive V.P., Dave Sumner, K1ZZ. To add to his collection of awards, I presented him an ARRL Certificate of Merit for his outstanding contributions to the amateur community over the years.

Following the formal presentations, I had a chance to talk with Chuck about his past amateur experiences. No surprise that he had many stories to tell! He appreciates everything ARRL has done for our hobby and looks forward to continued support. I found him very sharp and witty at 94 (going on 64)!

Chuck remains very active in the club and checks regularly into the nets with his 2 meter equipment. He is an inspiration to old

and new hams, alike, and I look forward to giving him his next award!

W9BZU was born July 17, 1907 in Manitowoc. He's a 1926 graduate of Lincoln High School. He served as president of De Forest Radio Club and joined the ARRL. He received his first operating license in 1928; his first official call sign was W9FVL.

During WWII, the military sought through the ARRL communications equipment for the war effort. Chuck offered his station, which was used in Alaska during the war.

W9BZU is well known for "Elmering" eager new hams and for generously donating his time and equipment to the community. And, he has never lost interest in ham radio. DXing on 80 and 40, satellite communications, and local ragchewing on 2 meters, 222 MHz, and 440 MHz are all part of ham radio for him.

He's been a long-time, active supporter of the American Red Cross and the Boy Scouts of America.

- Fred Neuenfeldt, W6BSF

## The WQP: He's Number One!



The competition on the air was pretty stiff in the 2001 Wisconsin QSO Party. But this fellow made the rest of look like, well, amateurs, with a total score of 133,951.5! He's Fred Helmstetter, N9FH, Mequon, WI. His log shows 60 counties, 39 states, and 4 Canadian provinces worked. CW QSOs tallied were 306, and he worked 225 on SSB. He's a member of LEFROG. The results of the 2001 WQP are available at <http://www.WARAC.org>; the WQP sponsor is the West Allis Radio Amateur Club. The party is always the second Sunday in March from noon to 7 p.m. CST.

Photo via Lynn Tamblyn, K9KR

## Hams assist US Navy flight

Participants on the 20-meter Maritime Mobile Net June 13 were a bit surprised when a ham aboard a US Navy plane checked in for assistance. John Pierce, KC4YWP, informed the Net that the Navy aircraft--using the military call sign "Copperhead 5"--had lost communication with its base. "He asked us to place a telephone call to his base to inform them he was returning due to loss of communications," said Bob Puharic of Pennsylvania--one of the net controllers. Puharic said that retired US Air Force Col Bob Botik, K5SIV, placed the call and informed Copperhead 5 that it had been delivered. "The US Navy thanked the net and secured," Puharic said.

The ARRL Letter

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# WHAT'S HAPPENING

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Edited by Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901 • [kebnetter@palacenet.net](mailto:kebnetter@palacenet.net)

### Swapfests And Other Social Events

SATURDAY, JULY 7, 2001 Swapfest 01 South Milwaukee Amateur Radio Club American Legion Park, Oak Creek Info: Verne at (414) 762-3235

SATURDAY, AUGUST 11, 2001 Circus City Swapfest Sauk County Fairgrounds, Baraboo, WI 7 a.m. until noon Info: Steve, N9UDO, 608.356.2313 or <mailto:n9udo@arri.net> or Bill, N9KXX, 608.643.6908 days or 608.643.6453 evenings. Web: <http://www.qsl.net/ytarc>

SUNDAY, AUGUST 26, 2001, Bollingbrook ARS, Joliet, IL. Contact: Bolingbrook ARS, PO Box 1009 Bolingbrook, IL 60440.

SATURDAY, OCTOBER 7, 2001, Decatur, IL. Contact: Spence Carter, N9LVW (21) 423-2095.

SUNDAY, NOVEMBER 4, 2001, Davenport, IA. Contact: <http://www.gwld.com/hamfest>.

SATURDAY and SUNDAY, SEPTEMBER 22 and 23 Radio Expo 2001 Sponsored by Chicago FM Club Lake County Fairgrounds, Grayslake, IL Info:

630.628.1501 Web: <http://www.chicagofmclub.org>

SATURDAY, JANUARY 5, 2002 30th Annual Mid-Winter Swapfest Sponsored by West Allis Radio Amateur Club Waukesha County Expo Center Forum 8 a.m. to 2 p.m. Info: Phil Gural, W9NAW, 414.425.3649 Web: <http://www.WARAC.org>

SATURDAY, APRIL 20, 2002. Eau Claire Amateur Radio Club Hamfest Eau Claire County Expo Center (Same location as last five years). Information: Jim Staatz, KG9RA. 1-715-838-9108. ECARC, P.O. Box 1867, Eau Claire, WI 54702-1867. Web page: [www.ecarc.org](http://www.ecarc.org) Email: [w9eau@ecarc.org](mailto:w9eau@ecarc.org)

As a service to our readers, this section is available without charge to list your upcoming swapfest, hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to [kebnetter@palacenet.net](mailto:kebnetter@palacenet.net).



### CLUB MEETINGS

Due to space limitations, we cannot carry the full listing of clubs every issue of BSSS. Please see last month's issue for a complete listing of area club meetings. The following are changes and or additions to last

months listing.

FOND DU LAC AMATEUR RADIO CLUB  
Fond du Lac, WI

Meetings: Second Monday at Moraine Park Technical College, Fond du Lac, WI. Time: 7 p.m. Sunday net 7:30pm CDT K9IA repeater 145.430- 107.2 Information: Jack Heil, KG9IN, (920)-922-1413 [kg9in@fdlhams.org](mailto:kg9in@fdlhams.org) Web: <http://www.fdlhams.org>

### The Test Point



Amateur Radio Examination Locations and Schedules in the Wisconsin Area

July 07, 2001	St. Paul, MN
July 07, 2001	Oshkosh (Omro), WI
July 12, 2001	Apple Valley, MN
July 14, 2001	Blaine, MN
July 14, 2001	Madison, WI
July 17, 2001	Eden Prairie, MN
July 17, 2001	Sheboygan, WI
July 21, 2001	Cottage Grove, MN
July 21, 2001	Loves Park, IL
July 28, 2001	Milwaukee, WI (MRAC)
July 28, 2001	Tomahawk, WI
July 28, 2001	Bloomington, MN
August 04, 2001	Oshkosh (Omro), WI
August 04, 2001	St. Paul, MN
August 09, 2001	Apple Valley, MN
August 10, 2001	Sioux City, IA
August 11, 2001	Madison, WI
August 11, 2001	Blaine, MN
August 18, 2001	Loves Park, IL
August 18, 2001	Cottage Grove, MN
August 18, 2001	Appleton, WI
August 21, 2001	Eden Prairie, MN
August 25, 2001	Bloomington, MN
August 25, 2001	Milwaukee, WI (MRAC)
August 25, 2001	Tomahawk, WI
September 01, 2001	Oshkosh (Omro), WI
September 01, 2001	St. Paul, MN
September 01, 2001	Adams
September 01, 2001	Racine, WI
September 08, 2001	Madison, WI
September 08, 2001	Blaine, MN
September 13, 2001	Apple Valley, MN
September 15, 2001	Milwaukee, WI (BE)
September 15, 2001	Loves Park, IL
September 15, 2001	Cottage Grove, MN
September 15, 2001	La Crosse, WI
September 15, 2001	Sheboygan, WI
September 18, 2001	Eden Prairie, MN
September 22, 2001	Bloomington, MN
September 29, 2001	Milwaukee, WI (MRAC)
September 29, 2001	Tomahawk, WI
October 06, 2001	Oshkosh (Omro), WI
October 06, 2001	St. Paul, MN
October 06, 2001	Racine, WI
October 11, 2001	Apple Valley, MN
October 12, 2001	Sioux City, IA
October 13, 2001	Madison, WI
October 13, 2001	Blaine, MN
October 16, 2001	Eden Prairie, MN
October 20, 2001	Milwaukee, WI (BE)
October 20, 2001	Loves Park, IL
October 20, 2001	Cottage Grove, MN
October 27, 2001	Bloomington, MN
October 27, 2001	Milwaukee, WI (MRAC)
October 27, 2001	Tomahawk, WI

## Badger State Smoke Signals

### Amateur Radio Education and Information

**CHAIRMAN:** Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560. [kebnetter@palacenet.net](mailto:kebnetter@palacenet.net)

**EDITOR:** Jim Romelfanger, K9ZZ, 412½ Ash Street, Baraboo, WI 53913. Telephone (608) 356-4031. [smokesigs@baraboo.com](mailto:smokesigs@baraboo.com)

**TREASURER:** Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage WI 53901.

**EDITORIAL BOARD:** Ken Ebnetter, K9EN; Don Evenson, K9JYX; Jim Romelfanger, K9ZZ.

### Subscription Rate

1 year (12 issues) \$13.95

Subscription form is on page 5. Special club package reduced rates are available. For information, contact Ken Ebnetter, K9EN.

### When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1. The only exception is for participating clubs' minutes. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For example, if a club meets on the 4th of the month, the material should be sent no later than the 9th of that month. This material is to be sent to the Editor.

### Where to Send It

Address changes and corrections, and exchange papers should be sent to Ken Ebnetter.

Editorial material, photographs, and feature articles should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebnetter.

Club, swapfest, and Test Point information should be sent to Ken Ebnetter.

Swapfest ADS should be sent to Jim Romelfanger NO LATER THAN EIGHT WEEKS BEFORE THE EVENT'S DATE.

Subscriptions should be sent, with check or money order, to Ken Ebnetter.

### Conditions for Reprinting or BBS Posting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles or posting articles on radio or telephone bulletin boards from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*. THIS CREDIT IS MANDATORY, AND NO MATERIAL MAY BE PRINTED OR POSTED UNLESS IT IS GIVEN.

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*Badger State Smoke Signals* is incorporated as a Wisconsin non-stock, non-for-profit organization.

### Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.



November 03, 2001 Oshkosh (Omro), WI  
 November 03, 2001 St. Paul, MN  
 November 03, 2001 Menomonie, WI  
 November 04, 2001 Kaukauna, WI  
 November 08, 2001 Apple Valley, MN  
 November 10, 2001 Madison, WI  
 November 10, 2001 Blaine, MN  
 November 13, 2001 Eden Prairie, MN  
 November 17, 2001 Milwaukee, WI (BE)  
 November 17, 2001 Loves Park, IL  
 November 17, 2001 Cottage Grove, MN  
 November 20, 2001 Sheboygan, WI  
 November 24, 2001 Bloomington, MN  
 November 24, 2001 Milwaukee, WI (MRAC)  
 December 01, 2001 Oshkosh (Omro), WI  
 December 01, 2001 St. Paul, MN  
 December 01, 2001 Adams, WI  
 December 01, 2001 Racine, WI  
 December 07, 2001 Sioux City, IA  
 December 08, 2001 Madison, WI  
 December 08, 2001 Blaine, MN  
 December 13, 2001 Apple Valley, MN  
 December 15, 2001 Milwaukee, WI (BE)  
 December 15, 2001 Loves Park, IL  
 December 15, 2001 Cottage Grove, MN  
 December 15, 2001 La Crosse, WI  
 December 18, 2001 Eden Prairie, MN  
 December 22, 2001 Bloomington, MN  
 January 26, 2002 Appleton, WI  
 Monthly, 1st Sat. Oshkosh (Omro), WI  
 Monthly, 1st Sat. St. Paul, MN  
 Monthly, 2nd Thu. Apple Valley, MN  
 Monthly, 2nd Sat. Madison, WI  
 Monthly, 2nd Sat. Blaine, MN  
 Monthly, 3rd Tue. Eden Prairie, MN  
 Monthly, 3rd Sat. Milwaukee, WI (BE)  
 (September through April)  
 Monthly, 3rd Sat. Loves Park, IL  
 Monthly, 3rd Sat. Cottage Grove, MN  
 Monthly, 4th Sat. Bloomington, MN  
 Monthly, Last Sat. Milwaukee, WI (MRAC)  
 (except December)  
 Monthly, Last Sat. Tomahawk, WI  
 (January thru October only)

**GENERAL RULES FOR MOST EXAMINATIONS** Be sure to check with sponsors before going to an examination session. There may be changes and/or errors in the dates or information given. Some examinations require filing an FCC or NCVEC Form 605 and advance registration at least 30 days before the exam date. Some VE teams permit walk-ins. Check with the sponsor.

Many hamfests and swapfests offer examinations. A hamfest entrance fee should not be charged if you come only to attend the examination. To register in advance, you must get a copy of the current FCC Form 605, and fill it out completely and correctly. Got your form from the FCC as instructed below, or from the American Radio Relay League, 225 Main Street, Newington, CT 06111. Please send an SASE if you request a form from the League. FCC Field Offices seldom stock forms. You can also get a form from

<http://www.fcc.gov/formpage.html> or <ftp://ftp.fcc.gov/pub/Forms/Form605>.

A form by FAX is available at (202) 418-0177 (request Form 000605). The FCC Forms Distribution Center will accept orders at (800) 418-3676. Form 605 has a main form, plus a Schedule D with two parts (for Vanity and Physician's Certifications). Forms can also be obtained from the sponsoring group.

See QST, W1AW bulletins, or The ARRL Letter regarding any annual exam fee changes. ARRL/VEC no longer gives a free code test or Element 2. Test fees: The ARRL/VEC has set its 2001 test fee at \$10.00. FCC requires applicants to show their original amateur license or CSCE to the VE team. You must also have a good copy of your license or CSCE. A copy of your license or CSCE must be attached to your FCC form 605 and most VE teams need a copy for their records. One good CSCE copy is sufficient. You are also be required to have a photo ID, or two other forms of ID. Contact the VE team for details.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to

General with a code test only. Proof must be either in the form of a pre-3/21/87 license document or a "Letter of Verification of Technician License Held Prior to 1987" as requested in writing from the FCC, 1270 Fairfield Road, Gettysburg, PA 17325-7245. For those with internet access, a listing of exam sessions is available from:

<http://www.arrl.org/arrlvec/examsearch.phtml>

By checking this page, you can find registered VE sessions anywhere in the US and some overseas. You can search by country, state or zip code. The listing is not specific to any particular VEC. It is a master database. Thanks to Bart Jahnke, W9JJ, ARRL/VEC

#### MILWAUKEE RADIO AMATEURS CLUB (MRAC/VEC) MILWAUKEE

Last Saturday, except June, July, and August, 9:30 a.m. to noon at

Amateur Electronic Supply (AES), 5710 W. Good Hope Road (the door you enter is actually numbered 5730), Milwaukee. For additional information, call (262) 797- MRAC. Bring along your original license, CSCE (if any), and one (1) good quality photocopy of each, plus two forms of identification, such as a driver's license, etc. Also required is \$6.65 for the exam fee. Walk-ins are welcome. To register in advance, use a post card. Print the grade of license you are applying for, your name, address, and telephone number, and send the card to MRAC/VEC, Milwaukee Radio Amateurs Club, PO Box 25707, Milwaukee, WI 53225.

#### BADGER EXAMINERS (BE) - MILWAUKEE

September thru April, every third Saturday morning, 9:30 a.m. to noon, Badger Examiners group tests at AES (Amateur Electronic Supply) at 60th and Good Hope, Milwaukee (use the entrance numbered 5730). Exams are given at the old Sterman Printing shop, just 300 feet west of the AES store. Novice to Extra are offered, and all test materials are provided. Fee is \$6.35, and bring your original license, or CSCE if needed. Also available are Commercial license exams GROL (General Radiotelephone license), GMDSS, Telegraph, Etc. Fee is \$35.00. For more information call 0237.

#### EAU CLAIRE, WI

##### EAU CLAIRE AMATEUR RADIO CLUB

October 6, 2001. 9 a.m. to 11:30 a.m. South Middle School, North East Side Door 7, 2115 Mitscher Ave., Eau Claire. Walk-ins welcome.

January 19, 2002. 9 a.m. to 11:30 a.m. South Middle School, North East Side Door 7, 2115 Mitscher Ave., Eau Claire. Walk-ins welcome.

Saturday, April 20, 2002 9 a.m. to 11:30 a.m., Eau Claire Hamfest. Held at Eau Claire Exposition Center, Lorch Avenue, Eau Claire. Walk-ins welcome.

Examination Session Coordinator: Steve Bluem, KA9OMY, [ka9omy@arrl.net](mailto:ka9omy@arrl.net). Telephone: 715.839.6509. Sponsored by the Eau Claire Amateur Radio Club. Web page: <http://www.ecarc.org> Email: [w9eau@ecarc.org](mailto:w9eau@ecarc.org)

#### FRIENDSHIP, WI

March 3, June 2, September 1, and December 1, 2001. Exams given from 2 p.m. to 5 p.m. at Adams County Electric Cooperative, Community Room, 401 E. Lake St. (CTH J), Friendship, WI. Exam fee: \$10.00.

All candidates should bring appropriate identification which bears a photo and signature. Candidates must present the original document of any current Amateur Radio license or CSCEs. A photocopy of the original documents must be sent along with the session paperwork. Walk-ins are permitted, but advance registration is appreciated. A candidate wishing to retest for the same element will be allowed to do so, provided the VE team has appropriate time and an additional exam fee is paid. There are no free exam elements.

Note that beginning June 1, 2001, multiple choice format Morse code tests will not be allowed. Code tests will be "fill in the blank" format only. Solid copy conditions will remain the same. Candidate registration may be submitted to Wayne Hemrbook, KB9NLO, at 608.339.4169. Questions may be di-

rected to Karl Simonson, KS9E, at 847.244.0802 or 847.778.0247. Karl Simonson, KS9E

#### MADISON, WI

First Saturday monthly: 8 a.m. to 10 a.m. Space Place, 1605 South Park Street, Madison. Please bring a picture ID, your original license, a copy of your license, and the original and a copy of any relevant CSCEs, and a check for \$10.00 made out to the ARRL/VEC. No appointments are necessary to take exams. Exams start promptly at 8 a.m. 2001 dates: April 7, May 5, June 2, July 7, August 4, September 1, October 6, November 3, and December 1. Questions may be directed to Tim Czerwinka, WO9U, at (608) 233-9829 (home phone) or sent to [wo9u@arrl.net](mailto:wo9u@arrl.net).

#### MENOMONIE, WI

Saturday, March 31, 2001, and Saturday, November 3, 2001. The location will be the U.W.-Stout's Millennium Hall 9 (the new Communications Building), at the corner of Broadway and 10th Avenue on the U-W Stout Campus in Menomonie, Wisconsin. Walk-ins only. Arrive between 9 and 11 a.m. For information, contact Jim Ley, NX9F, (715) 235-3998 (H), or (715) 232-1397 (W).

#### RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July, and August. Monthly exams are given 9 to 11 a.m. at the Faith United Methodist Church, 1013 Harmony Drive, Racine. Walk-ins are permitted. Talk in on 147.87/.27. Inquiries and registrations should be directed to Robert N. Jensen, W0WLN, 5616 Cambridge lane #6, Racine, WI. Telephone (262) 886-8551.

#### TOMAHAWK, WI

Last Saturday of every month, January thru October. Tomahawk Volunteer Examiners (ARRL/VEC), Tomahawk, WI. No advance registration required, but appointment would be appreciated. Registration at 8:30 a.m. and testing starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Terry Collins, KB9AUP, W6564 Highway 8, Tomahawk, WI 54487. Telephone (715) 453-4633.

#### APPLETON, WI - ARRL/VEC KAUKAUNA, WI (HAMFEST)

Conducted by the Fox Cities ARC VE team. All regular test sessions are held at the American Red Cross Building in Appleton. Testing starting at 8 a.m. For information, contact George R. Croy, W9MDP, 2113 Twin Willows Drive, Appleton, WI 54914. (920) 730-0967. Email: [W9MDP@arrl.net](mailto:W9MDP@arrl.net).

#### OSHKOSH (OMRO)

The Oshkosh VE Team will administer Amateur Radio exams monthly on the first Saturday. Registration begins at 8:30 a.m. and exams will be given from 9 a.m. until noon at the Omro Community Center, 130 W. Larrabee, Omro, WI. Walk-ins welcomed. Bring a good quality photocopy of your original license and any other necessary documents such as a CSCE, etc. The first session will be through W5YI/VEC, and then sessions will alternate between ARRL/VEC and W5YI/VEC. The exam fee is \$6.65. For more information, please call Dick Lemme, K9FA, at (920) 235-0987, e-mail [lemme@vbe.com](mailto:lemme@vbe.com), or write Dick at 826 Jefferson Street, Oshkosh, WI 54901.

#### SHEBOYGAN, WI

Saturdays, 9 a.m.: September 15

Tuesdays, 7 p.m.: July 17, November 20

Sessions will be held in the Red Cross building, 2023 Erie Avenue, Sheboygan, WI 53081, main floor. This testing site is handicapped accessible. Signs will direct applicants to the proper area of the building. Registration begins 30 minutes prior to each testing session. Pre-registration is appreciated, but walk-ins are welcome. Contact: Art Pahr, K9XJ, N8029 Willow Road, Plymouth, WI 53073-2929. (920) 876-2370. K9XJ e-mail: [k9xj@excel.net](mailto:k9xj@excel.net)

#### ONALASKA, WI (ARRL/VEC)

February 21, May 19, September 15, and December 15, 2001. Tests will be given at the Onalaska Public Library at 9 a.m. Contact: Roger Reader, KA9BKK, [readers@centurytel.net](mailto:readers@centurytel.net)

(continued on page 11)

## From the Section Manager

Don Michalski, W9IXG



It is with deep regret that I inform you that Art Smith, 90, K9LWZ, is a Silent Key. Art was very active in Army MARS. Don Schumacher, 77, K9CPY is a S.K. Don was active in Sturgeon Bay and Manitowoc clubs. W0RHP, Phillip Muth, 69, and Frederick Kohn, WA9OMC, are Silent Keys.

W9BZU, Chuck Scholten, received his 75 year ARRL award on May 15 at a ceremony given by members of MANCORAD, K9FHI, KA9BAC and I. Chuck has been an inspiration to many hams and we wish him many more years of amateur activity.

Our congratulations to the crew of the Dream Flight Wausau Shuttle. The mobile science education program is celebrating its 10th anniversary this year! The Dream Flight Shuttle is a refurbished school bus that's been outfitted to look like a NASA space shuttle.

Our thanks to all the amateurs who have supported the State Assembly PRB-1 bill. SGL, AD9X and PIC, K9ZZ, et al, have taken the lead on this important project and we greatly appreciate their efforts.

If your club is looking for an interesting project to demonstrate at a club meeting, consider building a copper cactus J-pole. It is and easy, fun and useful antenna!

73, Don, W9IXG  
www.w9ixg.eboard.com

## QSL card postage jumped a penny on July 1

It costs another penny to mail a QSL card (postcard) after July 1. The US Postal Service announced in January that it would raise the postcard rate by one cent--to 21 cents. The complete postal rate schedule is available on the USPS Web site, <http://www.usps.com/>.

The ARRL Letter

## Susan Helms, KC7NHZ, thrills Field Day OPS from ISS

Astronaut Susan Helms, KC7NHZ, took time out aboard the International Space Station to join in the ARRL Field Day fray last weekend. The operation was believed to mark the first time anyone participated in Field Day from space.

Helms worked several dozen stations--most of them Field Day operations--as the ISS passed over the US. ARRL Contest Branch Manager Dan Henderson, N1ND, says the NA1SS contacts will count for Field Day credit, but they will not count for satellite bonus points.

Helms sounded like a veteran contesteer during Field Day, although not without some confusion as to what exchange she should transmit. Initially acting on incorrect information, Helms was giving out "one alpha maritime mobile-Russia" for a Field Day report. Later, she resorted to "1 alpha battery on the space station."

The NA1SS Field Day operation infused a lot of enthusiasm into the occasion. "This Field Day is the one I'll remember the most, even after doing FD for 40 years," said ARRL Wisconsin Public Information Coordinator Jim Romelfanger, K9ZZ. Romelfanger work-

ed NA1SS as part of the WB9FDZ Yellow Thunder Amateur Radio Club Field Day crew. "Susan was having a ball up there!" he said.

Dave Swartz, KC7RRH, said his club's Field Day operation was another lucky enough to snag a contact with NA1SS. It happened almost by accident. Swartz, who operated with the Federal Way Amateur Radio Club's WA7FW setup in Washington, said the group was set up for a packet contact via the ISS when he heard Helms' voice coming over the speaker. Although he was on 20 meters at the time, he grabbed the mike at the packet setup next to him and made the QSO. Swartz said he was "very psyched" about working Helms but disappointed not to get the bonus points.

Henderson said that ISS contacts will not count for bonus points because the ISS is not an "Amateur Radio satellite," as rule 7.3.7 specifies

<<http://www.arrl.org/contests/announcement/rules-fd.html>>. Henderson said that, because of their nature, bonus points "need to be readily available to everybody," and the ISS offers only a limited window of opportunity.

As for the correct Field Day operating class for NA1SS, Henderson said there is more than one possible choice, but the question is largely academic. "Whatever exchange she sent out, count it as a valid contact for Field Day and enjoy the experience," he said. Field Day entries require a list of call signs worked by band and mode.

Henderson said Helms' ISS Field Day entry will end up "in a class by itself."

US stations working NA1SS aboard the International Space Station QSL to Margie Bourgoin, KB1DCO, ARRL, 225 Main St, Newington, CT 06111. Canadian stations QSL to Radio Amateurs of Canada, 720 Belfast Rd--Suite 217, Ottawa, ON K1G 0Z5. A self-addressed, stamped envelope is required to get a QSL in return.

The ARRL Letter

## From the editor..

Thanks to everyone who responded to my editorial in our June issue. There wasn't one negative comment, and there was a lot of encouragement. It's appreciated - it's all the pay we get.

The reason for that editorial had its roots in a number of complaints about late delivery, so I thought you should have some facts. But the primary impetus for the editorial was a remark from a former Wisconsin ham about six weeks ago that we "should get into the 21<sup>st</sup> century and put up a web site." Well, it's been there for a year and half, so we appreciate the "constructive criticism", even though it is wrong.

The site is hard to maintain, I have to say that. I literally do two versions of BSSS a month (and K9EN does four pages monthly, of course). But the site gets at least 15,000 hits a month. Not a Megasite, but good readership - and usually at least 25 different countries show up on the web analyzer at our host site.

So, each month brings more stress. And with a major anxiety disorder (didn't I tell you last month there were more problems?), it really gets rough.

Then, there is getting it to the printer, picking up the printed papers, labeling them, and lugging a bunch of big heavy bags to the Portage post office. They must be ZIP sorted in specific ways. Thank heaven for Ken, K9EN, he does that part. Gee, a staff of two!

All of which brings me to repeat the thanks I gave above, and our gratitude to all our faithful readers. We like you all!

Jim, K9ZZ

Fifth Annual!

# CIRCUS CITY SWAPFEST

Sponsored by  
The Yellow Thunder Amateur Radio Club, Inc.

Ham Radio, Computer & Electronics Extravaganza!

SATURDAY, AUGUST 11, 2001

7:00 A.M. UNTIL NOON

Sauk County Fairgrounds, Baraboo, Wisconsin

**Vendors \* Tail Gate Area**  
**Concessions \* Free Parking \* Camping**

\$5 Admission, \$4 In Advance

8 Foot Tables \$5 Each

(1 Admission Included Per Table - ADVANCE SALES ONLY)

Set-up 6:00 a.m.

### VE Testing

9:00am Code - 10:00am Written

### Talk-In

147.315 Repeater  
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WB9FDZ

The Sauk County Fairgrounds is located on highway 33, on Baraboo's far east side.  
From I-90/94: Take exit 106 (Hwy. 33) west to Baraboo.  
From Hwy. 12: Take Hwy. 33 east at the Kwik Trip in West Baraboo.

For more information contact: Steve, N9UDO at (608) 356-2313 or [n9udo@arrl.net](mailto:n9udo@arrl.net)  
Bill, N9KXX at (608) 643-6908 days, (608) 643-6453 evenings.

Visit us on the World-Wide Web:  
<http://www.qsl.net/ytarc/hamfest.htm>

For Advance Tickets Send Check With A Self Addressed Stamped Envelope To:  
Yellow Thunder A.R.C., 1120 City View Road, Baraboo, WI 53913-9704

Company Name: \_\_\_\_\_ Phone #: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Call Sign: \_\_\_\_\_

Address: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

No. Of Tickets: \_\_\_\_\_ X \$4.00= \_\_\_\_\_ Electricity Required? Y / N

No. Of Tables: \_\_\_\_\_ X \$5.00= \_\_\_\_\_ Total Amount Enclosed= \_\_\_\_\_

(one complimentary admission ticket with the purchase of each table - ADVANCED SALES ONLY)

# Digital Television: An Overview

By Tom Weeden, WJ9H

In the last few years we have seen many changes in the consumer electronics field. For example, you can now watch movies on DVD (digital versatile disk), record TV shows on disk-based PVRs (personal video recorders), connect to the internet using cable modems, and get hundreds of channels of satellite-delivered TV on an 18" dish. Something you may not have heard about yet, but will soon, is digital television, or DTV.

Does anyone out there remember free, over-the-air, plain old television? The kind which doesn't need a cable hookup or satellite antenna? It's still there, but if the FCC has its way, will be phased out in the not-too-distant future. This article will briefly explain the technical side of the new-style broadcast digital television (DTV), and a bit of its history.

The current type of analog television we can all watch was approved in 1953 by the National Television Systems Committee (NTSC). The NTSC developed a system of transmitting color TV on existing TV channels without obsoleting the black-and-white TV sets already in place. The beauty of this system was that monochrome sets could watch color TV programs (in black-and-white), and the newer color sets could tune in black-and-white programs. The NTSC standard has undergone several minor improvements in the last 50 years, along with technological advancements in the sets themselves, which give us very good pictures and sound.

In analog TV transmission, video is basically an analog voltage which corresponds to the instantaneous brightness value of a scene being scanned, line-by-line, by a camera. There are 525 scan lines in NTSC video (486 active lines), each of which are scanned in about 63 microseconds. A single complete "frame" of video is scanned in 1/30th of a second. The complex video voltage has synchronization pulses added to it so that the receiving set will scan the same line that the camera scans. This video is simply amplitude-modulated onto a VHF or UHF carrier and transmitted. Audio is modulated FM on a carrier that is 4.5 MHz above the video carrier. (A TV station can be thought of as having two separate transmitters, one for visual information and one for aural.)

In the 1980s, the Japanese came up with a new TV system offering a wider screen, improved resolution, and better color. It was known as "high-definition television" but was still an analog system. It never really caught on. Meanwhile, in this country, several manufacturers attempted to come up with a high-definition (HDTV) system. Eventually, these manufacturers took advantage of new digital technologies and combined forces in what was called "The Grand Alliance" to develop digitally-based TV.

Digital video is based on discrete pixels (picture elements) rather than on an electron beam that scans an image continuously. A picture may have 640 by 480 pixels, with each pixel having different brightness values for red, green and blue. If you assume that each of these three primary colors can be represented by one of 256 brightness levels (in 8 binary bits), you will need 24 bits of information to describe the color of just one pixel. Multiply 24 by 640 horizontal pixels by 480 lines, and you need a lot of bits to draw one frame of video. Now do this 30 times a second! Well, the math has been done by someone else, and the result is a data stream of 270 megabits per second when you include overhead. And this is for what is known as "standard-definition"

video, which produces quality slightly better than its analog counterpart. Once you get into "high-definition" video, with 1,980 pixels per line by 1,080 lines, the data rate is around a billion and a half bits per second!

Did I mention the audio is digital too? The analog audio is sampled at a 48 kHz rate and assigned an instantaneous digital value which is represented by 16 bits. For two-channel stereo, and the necessary overhead, digital audio runs about 1.5 megabits per second.

These digital audio and video bitstreams are what is known as "baseband signals." These high bit rates can't be delivered to the home in their baseband form. They have to be "compressed" to fit in the limited bandwidth transmission routes available. (You dial-up internet users may get up near 50,000 bits per second on your modem, which is nowhere near 270,000,000 bits per second for ordinary digital video.) What can be done?

DTV uses methods similar to "zipping" computer files to make them smaller. A frame of video can be considered a spreadsheet of data. Computer algorithms look for duplicate data, and use mathematical transforms which are beyond the scope of this article to squeeze the amount of data to the bare minimum for transmission. The state of the art today can get the original 270 megabit/sec data down to 6-8 Mb/sec with no noticeable artifacts. What is even more amazing is that the 1.5 gigabit/sec HDTV data can be compressed down to 12-15 Mb/sec with very few visual "impairments." While this is still too high a data rate for internet transmission, it can be done over the air!

The Advanced Television Systems Committee (ATSC) approved a transmission system which takes a standard 6 MHz-wide RF television channel using 8-level amplitude modulation, and can send 19.4 Mb/sec of data (better than 3 bits per Hertz) in it. The FCC adopted the ATSC system, and it will be coming soon to a TV near you.

A few years ago, the FCC assigned each full-power TV station in the US a second channel for the purpose of broadcasting digital TV. Commercial stations are required to be on the air in DTV by May 1, 2002, and non-commercial stations (such as PBS affiliates) by May 1, 2003. After a period of simulcasting, the FCC will require the analog TV stations to sign off and vacate their original TV channel.

As of today, there are more than 200 DTV stations on the air in the US. In Madison, WISC, WKOW and WMTV have activated their digital channels. (WISC-DT is on channel 50, WKOW-DT is on channel 26, and WMTV-DT is on channel 19.) If you tune in a DTV channel on your analog TV set, you will just see digital "snow," as the new ATSC system is not backward compatible (like color TV was to black-and-white).

Now I can hear some of you saying, "Wait a minute! Are you telling me I have to buy a new TV set?" In a word, yes. At least you will have to buy a DTV receiver, which can tune in digital TV and output analog video to your existing set. (Anyone remember FM converters for your car's AM-only radio?)

The FCC's original drop-dead date for the cessation of all regular analog television broadcasting in the US was to be May 1, 2006 (less than five years away). Since that ruling, a loophole was added saying that analog television can't be shut down until 85% of viewers in a market can receive digital signals. How long will that take? If history is a guide, from the time color television was introduced in 1953, it took until 1978 for 50% of viewers to have color TV sets in their homes. That was 25 years.

So you won't need to drop this newspaper and rush out to buy a DTV set today.

Even though the cost of HDTV sets is dropping, it's still a few thousand dollars. But some of the new receiver-only units have a VGA connector on the back that can feed a computer monitor. The quality of the picture using this set-up is outstanding. Connect the audio outputs of the receiver to your stereo system, and you're ready. (Note to those who are in the market for a new HDTV set: make sure the set has a tuner/receiver! Otherwise, you're just buying a really nice video monitor.) RCA's DTC-100 receiver with analog and VGA outputs is \$549 last I checked.

Another method of receiving DTV is to buy a DTV card for your computer. Hauppauge and other manufacturers have gotten the demodulator and digital processing down to a single card, at a price of about \$300. You can watch the DTV station on your computer screen, or use the S-video output on the card to drive a large TV set.

When you see high-definition TV for the first time, you will be amazed! Regular analog TV will seem almost out of focus, since HDTV detail is so good. If you get a chance, go to your favorite electronics retailer and ask him to tune in your local digital TV stations on one of his new sets. You might BOTH be amazed!

## Want to learn more about DTV?

There is a wealth of information about Digital TV at the following Web sites:

<http://www.hdpictures.com/stations.htm>

[http://www.sbe24.org/techdocs/dtv/dtv\\_handout.htm](http://www.sbe24.org/techdocs/dtv/dtv_handout.htm)

<http://www.digitaltelevision.com>

Tom Weeden, WJ9H  
Chief Engineer, WMTV/  
WMTV-DT digital

## About the author..

Tom Weeden (WJ9H) is a native of Beloit, Wisconsin, and earned a degree in Broadcast Engineering and Production from the University of Wisconsin-Platteville in 1979. He was an Operations Engineer at WTVO/Rockford IL from 1979-1980, then moved on to become Chief Engineer at WSWW AM-FM/Platteville from 1980-83. Tom left Wisconsin in 1983 and served as a Master Control Operator at Austin (TX) CableVision until 1986. In 1985 he also began to work part-time as Chief Engineer at KIXL/Austin TX. In 1986 he and his wife returned to Wisconsin, where he began work at WMTV/Madison as a Maintenance Engineer. In 1991 he was promoted to Chief Engineer.

Tom held an FCC First Class Radiotelephone Operator permit from 1976 until it was discontinued in 1985. In April 1986 he joined the Society of Broadcast Engineers. Tom holds a Certified Professional Broadcast Engineer (CPBE) certification and is SBE Chapter 24's secretary.

WJ9H has been an amateur radio operator for 30 years, first licensed as WN9HME in 1971, and earning Extra Class in 1985. Tom's radio interests include non-voice modes such as APRS, ATV, PSK31 and SSTV, as well as occasional net control duty for South-Central Wisconsin SKYWARN.

Tom, his wife and two children live in Madison and are active at Lake City Church.

## Why Digital Television?

The demand for spectrum for new wireless services is huge. That demand and the relatively recent concept that the radio spectrum can be sold are the main forces driving the transition from analog to digital TV, in my opinion.

The FCC's allocation of UHF TV channels many years ago was based on poor selectivity in receivers. To avoid image interference and for other reasons, UHF stations in a particular city were spaced 6 channels apart. That's 30 MHz of unused space between stations! Notice the original 6-channel layout of UHF stations in the larger Wisconsin markets:

Milwaukee: 18 - 24 - 30 - 36

La Crosse: 19 - 25 - 31

Madison: 21 - 27 - 33 (WMTV was later reallocated from 33 to 15, still 6-channel spacing)

Green Bay/Appleton: 26 - 32 - 38 - 44

With today's improved receiver technology, TV stations can be more tightly packed together. The original UHF TV band was channels 14-83 (470-890 MHz). About 20 years ago TV stations were moved off the channels above 69 (806 MHz) to make room for cellular phone and other services. Now there's a new opportunity to shuffle the TV spectrum again with a conversion to digital TV. Here's a quote from a recent FCC Notice of Proposed Rule Making (concerning wireless microphones on unused TV channels): "We note that the Balanced Budget Act of 1997 directed the Commission to auction recaptured television broadcast spectrum and to allocate spectrum in the 746-806 MHz band (UHF TV channels 60-69) for public safety services and for commercial use. The Commission has already implemented the reallocation of the 746-806 MHz band (emphasis mine) and intends to reallocate the 698-746 MHz band (UHF-TV channels 52-59) in the future." 108 MHz of UHF spectrum is for sale, even though many TV stations still occupy those channels, providing a free service to the public.

DTV does have many advantages over analog. However, several problems complicate the transition.

- There are enormous equipment costs to each TV station for a second antenna, transmitter, and analog-to-digital conversion gear. Small stations may not be able to afford these costs and could be forced off the air.

- Approximately 80% of Americans don't rely primarily on over-the-air TV. They have cable or satellite service.

- Cable TV companies are not required to carry the digital signals of the local TV station. If they do carry the digital signal, they are not required to furnish any set-top converter to the subscriber, despite incompatible signal formats between digital TV and digital cable. If a station offers high-definition programming, the cable company can choose to deliver it in a low-resolution format.

- Most viewers are perfectly happy with the quality of analog TV and don't want to pay for a new, expensive HDTV receiver.

- As noted above, the auction of UHF spectrum is written into law. There is great pressure to get analog TV off the air quickly so auctioned spectrum can help "balance the budget."

Digital television offers improved pictures, sound, and even datacasting possibilities. DTV's quality is better than DVD. But to those of us who work in the broadcasting industry, it is a frustrating time of transition -- a government-mandated transition that most TV viewers are unaware of! The attitude of "spectrum for sale" also shows how we amateurs must be diligent in occupying and protecting our bands from the highest bidder.

--WJ9H



## The Computer Corner

By Stan Kaplan, WB9RQR • 105 Martin Drive  
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### No. 91. How to Avoid Clogged Computer Syndrome

Let's face it, we all don't clean out our garages, basements or closets as often as we should. Then, one day, when rummaging among the shoeboxes and boots, the whole thing comes crashing down, sometimes along with the closet pole and all the clothes hanging on it! Field repairs are necessary right immediately, and we often give in to the necessity of finally cleaning out the junk and organizing the remainder. Well, a disorganized, junk-ridden buildup can develop in a computer's hard drive, too. So here are some tips to fix that. It will not only prevent buildup of files leading to the dreaded "Disk Full" message, it will also reorganize and defragment those files and programs you wish to keep. Moreover, it is quite an easy task.

However, it takes just a little preparation. Assuming you are working with Windows 98 (you should be) double-click **My Computer**, then click **View**, then **Folder Options**, then select the **View** tab. The list shown there will display a number of option boxes. Select (by clicking the box to put a black dot in it) **Show all Files**. Similarly, **deselect** (so no black dot is in the box) **Hide File Extensions ...** You have just instructed your computer not to hide any files from your view, and not to hide any file extensions. You are the human boss of your computer, and nothing should be hidden from you! Now you can clean things up.

If you are a bit worried about deleting files, remember that any file you delete while in Windows still resides in the Recycle Bin until the bin is emptied. It can be restored from there should things stop working properly. If you are really skittish, instead of deleting the files you can move them to a new folder you create for that purpose. Call the new folder JUNK, and delete its contents after a few days when you are sure that all is well. If a program complains that it cannot find a file that you moved to JUNK, simply move it back to where the program expects to find it (write down any error messages so you know where that is).

1. Erase **temporary files**. In Windows Explorer, navigate to the C:\Windows\Temp folder. Open it and look at the files inside. Highlight any file with the .tmp file extension that has a date/time stamp earlier than the last time you started your computer. Then right-click it and delete it. Repeat as necessary until they are all gone. These are temporary files, used by installation programs or by open application programs. They are supposed to be deleted automatically, but were not, sometimes because a programmer was sloppy or lazy and did not provide for proper cleanup. They are no longer useful for anything at all once the intended activity is over.
2. Erase **Mscrate.dir**. Click **Start**, then **Find**, then **Files or Folders** and type in **\*.DIR**. Make sure the **Include Subfolders** box is selected, and then click **Find Now**. If any **Mscrate.dir** files turn up, right click them and delete them. There may well be hundreds of these files on your drive. They were created during execution of any of Microsoft's installation programs and are completely, totally useless. While they are zero-byte files that take no data space, they do take directory space. Delete every last one.
3. Repeat the **Start**, **Find**, **Files or Folders** bit and type in **\*.old**. Erase any files with that extension.
4. Do it again for **\*.bak**.
5. If you are ruthlessly seeking more disk space, do it again for **\*.log** and **\*.txt**. If you prefer to use a safety measure, open each file first (double click it to open it with Notepad - they are simple text files) to view the contents before deleting. If expendable, right click to delete.
6. If your browser is **Internet Explorer**, open it, click **Tools**, then **Internet Options**. Under the **Temporary Internet Files** click **Delete Files**. While you are at it, under **History** click **Clear History**.
7. If you use **Netscape**, open it and click **Edit**, then **Preferences**. Click **Advanced** to expand it. By the way, this screen under **Advanced** is where you can turn off cookies if you choose, which is my recommendation. Click **Cache** and then click both **Clear Memory Cache** and **Clear Disk Cache**. Return to the desktop.
8. Now is a decisive moment. If you feel confident, delete the contents of your Recycle Bin. If not, double-click the bin to open it, right click the file(s) you are worried about and select **Save To**. You can save the files to floppies, or to some folder you have created for that purpose.
9. Next is perhaps the most important step of all. Click **Start**, then **Programs**, then **Accessories** and select **System Tools**, **Disk Defragmenter**. In the pull-down slider bar, select **All Hard Drives** if you have more than one partition. Click **Start** and **Show Details** if you would like to watch the process. The "defrag" process will put the files in proper order on the disk, and will consolidate all scattered file fragments into contiguous blocks, as they should be. It is much like making certain that matching pairs of shoes are together in all the shoe boxes in your closet, and neatly stacking the boxes in the order in which you use them. It can significantly increase the overall speed and efficiency of your computer, so do it! Try to remember to do it once a month or more often if you use the machine heavily.

That is it for this month. Happy Computing!

## Amateur Morse Testing Changes Effective July 1

New Morse code exam standards took effect July 1 for all Volunteer Examiner Coordinators. The new standards call for Farnsworth character speed in the 13-to-15 WPM range and the end of multiple-choice questions for routine Morse code exams.

In the wake of restructuring and the establishment of 5 WPM as the sole amateur Morse requirement, the National Conference of Volunteer Examiner Coordinators voted last July to set up the revised standards for the administration of Morse code examinations in the US.

ARRL VEC Manager Bart Jahnke, W9JJ, points out the required change to the Farnsworth protocol replaces the 18-WPM character speed ARRL VEC has used since 1989. "Standard 5 WPM messages with 5 WPM characters are available as an accommodation," he said. "Standard (non-Farnsworth) speed messages are available upon special request from the ARRL VEC for ARRL VE teams."

In addition, the Morse exam audio frequency range should be between 700 and 1000 Hz for routine exams. Consistent with the revised standards, Jahnke said, ARRL VEC has set 15-WPM characters as its Farnsworth setting and 750 Hz as its audio-frequency standard.

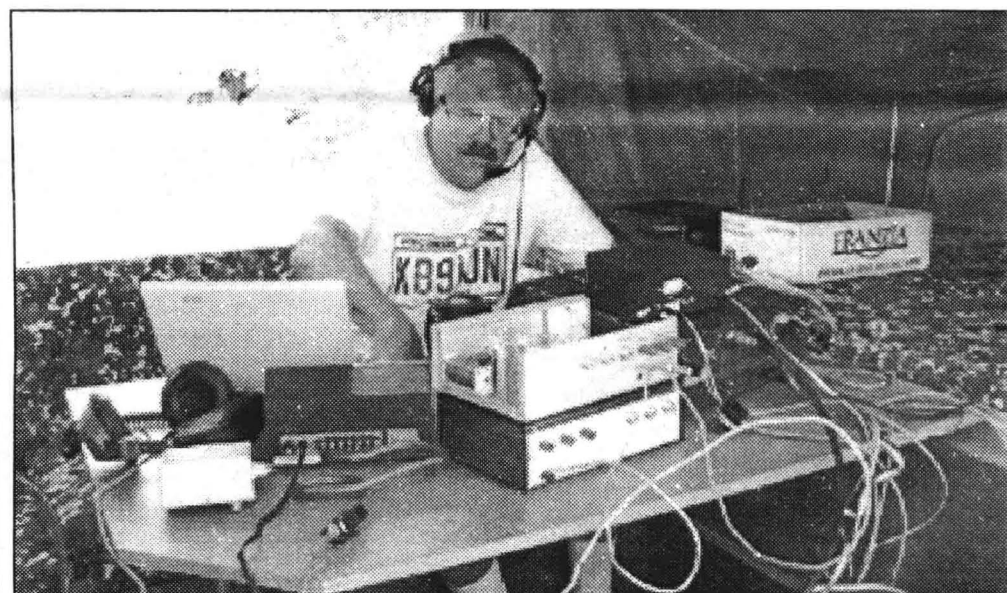
Code practice transmissions from Maxim Memorial Station, W1AW, will reflect the new Farnsworth standard. W1AW Station Manager Joe Carcia, NJ1Q, said transmissions using the new protocol were to begin Monday, July 2. Code transmissions at speeds below 18 WPM will drop from 18 WPM to 15 WPM character speed. W1AW Web code practice files, at <http://www.arrl.org/w1aw/morse.html>, will mirror the new standards too.

The new Morse examination standards also affect test administration. After July 1, Morse examinees will have to supply fill-in-the-blank answers for the 10-question Element 1 quiz. Multiple-choice type examinations no longer will be acceptable. Under the new testing regime, Morse code examinees must either correctly answer seven of the ten fill-in-the-blanks questions or correctly copy 25 consecutive characters.

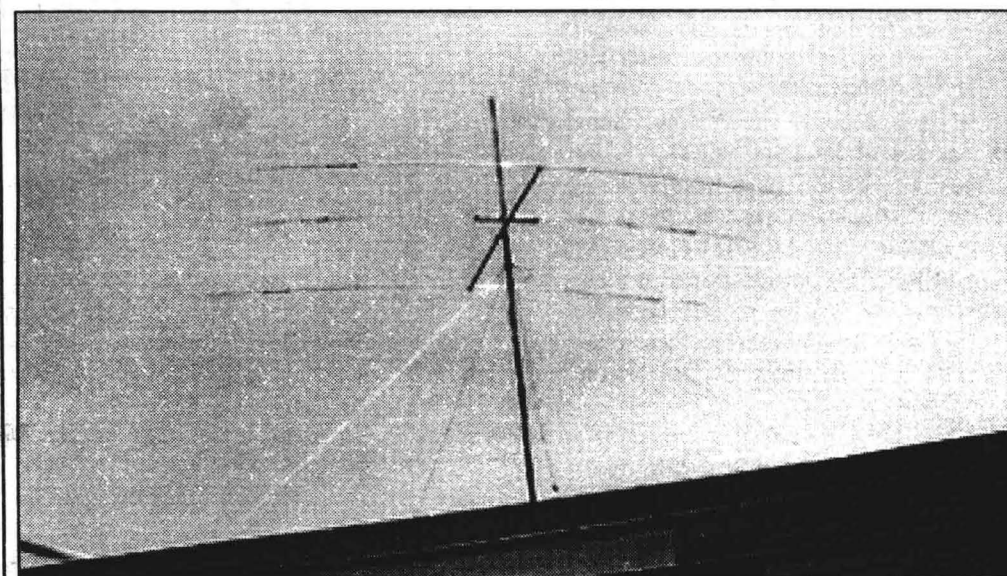
Changes are on the horizon for the written examinations as well. Revised Amateur Extra question pool will go into effect July 1, 2002. Reworked Technician and General question pools will become effective on July 1 2003 and 2004 respectively.

ARRL Bulletin 024

## West Allis Amateur Radio Club does Field Day 2001



The West Allis Radio Amateur Club operated Field Day at the Crystal Ridge Ski Hill in Franklin. Here, Tim Schumann, KB9HJN, cranks the knobs and rolls out the QSOs.



Good antennas never hurt! Here's a 20-meter beam used by WARAC on Field Day.

Photos and info courtesy Dave Knaus, N9QA

Read us on the Web!

<http://www.bsas.org>

# PARTICIPATING CLUBS AND ORGANIZATIONS

## Wisconsin Nets Association Ltd.

**Dean R. Herriges, KB9ROB, Secretary**  
**W370 S9590 Highway 67 • Eagle, WI 53119**

## WISCONSIN NETS

Net	WNA	Freq.	UTC	CDT	Manager
BWN	Yes	3985	1100	0600	W9RCW
BEN	Yes	3985	1700	1200	KE9VU
WSBN	Yes	3985	2230	1730	K9FHI
WNN	Yes	3723	2300	1800	KB9ROB
WSSN	Yes	3645	2330	1830	N9BDL
WIN/E	Yes	3662	0000	1900	WB9ICH
WIN/L	Yes	3662	0300	2200	W9UW
RCRA	No	01/61	0030	1930	KA9OMC
(Mondays CDT) (Menomonee Area)					
Gr. Bay	No	72/12	0245	2145	WB9NRK
(Green Bay Area)					
ARES	No	4.65/5.25	0200	2100	
(South East/South Central Wisconsin)					

### Wisconsin STM Report May 2001

#### It's All in the Translation

We have all kinds of codes in our hobby -- the Morse code, of course, a code of ethics, the "Q" signals, and even the bad code one gets from putting up antennas in mid-winter. Oh, sorry, an observant reader has just pointed out that a head code is only how it sounds in voice. In CW, it's still a cold. Especially if noses run in your family. So what about all those other codes?

It's our job to translate. Whether we are explaining the hobby to a non-ham, describing our activities to a public official, or delivering traffic with ARL numbers in the text, we need to convert the idea into plain, understandable words.

Sure, it's fun to have the jargon among us. We enjoy swapping acronyms -- QTH, BC610, EME, PSK-31, etc. -- but when we're in the company of non-hams, we need to do what we do best -- communicate.

It doesn't hurt to draw parallels to the Internet when explaining Ham Radio. It's important to show the differences, just as it is when Ham Radio is contrasted with CB. The fun in the hobby is the diversity it offers in ways to communicate with interesting people.

When delivering a radiogram to a non-ham, of course, we read the entire text of the message -- not the ARL numbers. In fact, even when delivering to a ham, it's a good idea to ask if the recipient has the ARRL's list of radiograms. (Need one? They're free from HQ, from me, or from the ARRL website,

[http://www.arrl.org/FandES/field/forms/.](http://www.arrl.org/FandES/field/forms/))

When we explain the use of the National Traffic System to public officials, we need to be clear. Quite simply, the NTS is a way of getting messages across the city, state, or country in an accurate and orderly way. It is a method of supporting communications when the cell phones don't work and the other systems are overloaded. It may help to show a sample radiogram. There's no need to explain net protocol or the workings of the NTS unless someone asks. What's important is to let people know what is available to them in times of need.

We need to keep our faith in the hobby and in our practiced skills. We need to maintain our hope that we can serve through our hobby. And we need to be very clear about who we are and what we offer. Faith, hope, and, perhaps the greatest of these, clarity.

#### 73 -- K9LGU / STM

#### MONTHLY NET ACTIVITY SUMMARY MAY 2001

NET	QNI	QTC	QTR	SSNS	NM
BWN	1302	1599	2325	31	W9IHW for W9RCW
BEN	478	73	790	30	KE9VU
WSBN	591	62	834	31	K9FHI
WNN	140	13	319	31	KB9ROB
WSSN	201	29	326	31	N9BDL
WIN/E	204	81	339	31	WB9ICH
WIN/L	196	66	322	31	W9UW
TOTALS	3112	1923	5255	216	

#### STATION ACTIVITY SUMMARY Wisconsin Section May 2001

STATION	ORIG	RCVD	SENT	DLVD	TOTAL
W9RCW	0	391	50	386	827 - BPL
K9JPS	2	341	45	338	718 - BPL
W9IHW	0	314	34	280	628 - BPL
N9VE	0	239	33	242	514 - BPL
WD9GNK	0	238	30	288	506 - BPL
N9TVT	0	122	341	4	467
W9YPY	0	155	204	0	359
W9CBE	0	159	148	6	313
K9LGU	5	80	47	1	133
K9GU	0	54	11	54	119
K9FHI	0	41	61	0	102
N9CK	0	48	46	2	96
N9BDL	0	23	65	1	89
AD9X	0	32	42	11	85
N9KHD	0	39	45	0	84
W9YCV	1	32	41	6	80
W9UW	1	40	26	1	68
AG9G	0	9	54	0	63
KG9B	0	9	41	0	50
KE9VU	0	18	32	0	50
KB9ROB	0	32	5	0	37
KA9FVX	0	1	32	1	34
K9HDF	0	0	30	0	30
W9BHL	0	0	29	0	29
N9JIY	1	8	11	8	28
AA9BB	0	0	26	0	26
WB9ICH	0	23	2	1	26
WD9FLJ	5	6	5	6	22
KA9BHK	0	0	10	0	10
KN9P	0	4	4	0	8
K9UTQ	0	1	2	1	4
W9PVD	0	0	1	0	1

## Lakeshore Repeater Association

**147.270 MHz • Racine, Wisconsin**

**Larry McCalvy, WA9JMO • 5400 Six Mile Road**  
**Racine, WI 53402-9741 • wa9jmo@wi.net**

Our quarterly Repeater meeting will be held at 7:30 p.m. on Tuesday, July 31, 2001 in the lower meeting room of the Racine Red Cross Building, 4521 Taylor Avenue in Racine. Park in the back and enter the glass doors next to the white overhead garage door. Our 70cm repeater should be operational on 447.000/442.000 prior to this date. We will be "burning-it-in" for a couple weeks, testing all circuits and hardware prior to installing it at our new site. Final arrangements are being made with a commercial tower climber and the last of the needed installation hardware is being gathered. There is a very slight chance that the repeater will be moved to, and operational from the new tower. But after all the delays we have had, I expect that a more realistic date would be in August.

Prior to the Repeater meeting, ARES will host their own meeting beginning at 6:30 p.m. in the same classroom. Please try to attend both gatherings.

Dan Miller, KA9OIL, is our nomination's chair for the selection of Lakeshore's slate of 2002 candidates for office. We are

looking for candidates for President, Vice-President, Secretary and Treasurer. If you are interested in one of these positions or know of someone who is, please give Dan a call. Nominations will also be accepted at our election meeting, Tuesday, October 23, 2001.

We have had some interference on our two-meter machine. One of our members living very close to one of our receive site runs high power to work a two-meter repeater in Northern Illinois. When third station/party/repeater activates their transmitter while our member is working the Illinois repeater, we get a dual transmission our 147.870/270 machine. We are working to identify the third party to this problem so a permanent fix can be addressed. If you have the time and inclination, please give a listen; see if you can identify the source. Please share your ideas with your board of directors.

73,  
 Larry McCalvy, WA9JMO  
 President, Lakeshore Repeater Association

## Quarter Century Wireless Association Southeastern Wisconsin Chapter 162

**Larry McCalvy, WA9JMO**  
**5400 Six Mile Road**  
**Racine, WI 53402**



At this writing, Chapter members are busy gathering equipment and ideas as they anticipate Field Day 2001. The gang, operating QRP battery, is hoping for pleasant weather conditions and great contacts as this event kicks-off at 1 p.m. on Saturday, June 23<sup>rd</sup>. The various committees associated with this annual event have their areas of responsibilities covered and everyone is looking for a grand time and a big score.

Cruise Convention 2001 sailing on the Holland America Westerdam out of Fort Lauderdale, Florida has 108 cabins confirmed with 217 Hams/relatives/guests preparing to enjoy all the Caribbean has to offer. The 27 October to 4 November outing will explore the conditions on 15 and 20

meters during the day and the 40 to 75 meters opportunities at night. We will have a special event station in operation during most of our cruise. We are still looking at options for our sailing Hams onboard the Westerdam and in our ports of call. If you are interested in the cruise give me a call at (262) 639-7327, and/or email me at [wa9jmo@wi.net](mailto:wa9jmo@wi.net).

This is an Amateur Radio opportunity that is not limited to QCWA members. I will be happy to send additional information and our price list to interested parties.

Mark your calendars for 1 p.m. on Sunday, 19 August and note it is time for our annual picnic. Our site is again Decision Farm, 5400 Six Mile Road, Racine, ½ mile west of Highway 31 on the north side of Highway "G" (Six Mile Road). The Chapter will provide two gas grills and one charcoal -- the latter for roasting our world famous corn-on-the-cob; the Chapter will also provide beverages. Each attendee is asked to bring a dish to pass and their own meat to grill. Swimming and fishing should be great and there is a canoe and paddleboat available. I have ordered all the mosquitoes to depart the area from noon until dark for our picnic

73,  
 Larry McCalvy, WA9JMO, President,  
 Chapter 162

#### P S H R SUMMARY May 2001

CALL	1	2	3	4	5	6	7	8	T
W9RCW	34	0	0	386	0	30	3	3	450
K9JPS	46	24	24	328	2	10	0	0	434
N9VE	60	0	6	242	0	20	40	0	378
K9FHI	60	24	24	1	0	30	20	30	188
K9LGU	60	24	24	1	5	20	10	0	144
N9BDL	60	24	24	1	0	30	0	0	139
W9YCV	60	24	24	6	1	20	0	0	135
W9CBE	60	24	24	6	0	20	0	0	134
WD9FLJ	60	0	12	6	5	20	0	30	133
N9TVT	60	24	24	4	0	10	0	0	122
AG9G	60	24	18	0	0	10	0	0	112
KG9B	33	12	0	0	0	0	0	30	75
KA9FVX	60	0	0	1	0	10	0	0	71



## Yellow Thunder Amateur Radio Club - Field Day 2001 - WB9FDZ



Astronaut Susan Helms, KC7NHZ, is shown here aboard a space shuttle during a mission. She operated Field Day from earth orbit, 170 miles up, from the International Space Station, using the call sign NA1SS.

Just before heading to Owen Park for the club's FD outing, I noted a pass of the International Space Station (ISS) would occur about five minutes into the communications exercise, with two more to follow. We would be in the station's "footprint" all three times.

I parked my butt at the two meter rig. Steve, N9UDO, has his eggbeater antenna lashed to a fence post, about eight feet off the ground. We checked the frequencies to be sure they were correct. And then we waited.

It was time. We heard a packet burst, and someone commented that might be all we'd get. Not so, as right after that, there was Susan Helms on voice using the ARISS station and signing the call NA1SS.

The DXing competitiveness within me turned itself on. Tail-ending. Timing.

And, sure enough. Three minutes or so into the pass, WB9FDZ became a part of an historic Field Day, the first time someone in earth orbit operated Field Day. We worked her with excellent signals both ways.

So, about seven minutes into FD, we had the ARISS contact, and it seemed anything after that would be anti-climactic.

We then listened with interest as she worked a youngster and a station with a Scout troop. It was interesting to hear her slow the pace just a little and take the time to encourage them. She asked either the youngster or the Scouts, "What do you think of ham radio now?" We could not hear the earth station, of course, but let your imagination provide the answer.

Two or three dozen stations had FD QSOs with NA1SS. The members of YTARC are proud and happy to be a part of something new in that annual bug-swatting, wire tripping, and all-around enjoyable event we call Field Day.

And we all thank everyone who made ARISS possible in the first place, and thanks to Susan Helms and her superiors who gave her Field Day time from 170 miles above us.

- Jim Romelfanger, K9ZZ



Steve Schulze, N9UDO, does an equipment shuffle as son Rich looks on at the YTARC Field Day site, Owen Park in western Columbia County in Caledonia Township. Two things made this outing more interesting than other Field Days may have ever been. One was about 100 Harley-Davidsons rolling in for a wedding. They used the west end of the park, and YTARC was on the east side. We had lots of fun talking with quite a few of the bikers, and they enjoyed watching the Field Day fun. The other was working NA1SS in earth orbit.

Photos by Jim Romelfanger, K9ZZ

## Mancorad Radio Club

Theresa Hartlaub, KB9KXE,  
Secretary

P.O. Box 204 • Manitowoc, WI  
54221-0204



**2-Meter Repeater: 146.01 Input/146.61 Output**

### June Meeting Minutes

The Mancorad June meeting was held June 13th at our new club shack at 1105 Fleetwood Drive, just off of Waldo Blvd. President Fred (W6BSF) started the meeting at 7:34 p.m. The May minutes were read and approved by motions made and seconded by Ken (K9HAG) and Travis (KB9YRC). Our treasurer, Roger, read the treasurer's report which also was approved with motions by Mary (KB9GOY) and Rahlf (N9AWG).

Fred thanked all the members who helped with the move of club equipment from the downtown location to our new shack. He also reminded everyone that there is still a lot to do, so anyone interested in helping should talk to Red or Fred.

All members were reminded that after July 1st the ARRL membership dues are going up.

Thank you letter was read from the Salvation Army for our bell ringing efforts at Christmas. This was organized by John (NZ9Z) with other members helping. \$284.00 was brought in through their efforts. A job well done. Thank you to all who participated.

The club will buy a refrigerator for the shack. After a discussion, it was decided by unanimous vote to purchase a GE 4.3 cu. ft. model. Fred will stock it for the next meeting.

A request from Jim Romelfanger (K9ZZ) was read for a donation to expenses he incurs while running a special event on the Circus Train. The train travels from Baraboo to Milwaukee. It was decided to send him \$0.00 towards his expenses.

Once again a nuclear drill will be run from the Kewaunee plant. Volunteers are asked to help again. It will be held July 31st. Fred ran down the procedures for the day. More participation is wanted from the Madison office. A meeting for those involved will be held July 10th at the Holiday Inn, including a lunch. If interested please contact Fred.

Any one interested in a club badge will have an opportunity to order one next month. Roger (W9NPX) will have more information next meeting.

Also jackets and shirts are also still available.

Jim (KB9GOX) reported on the Smelt-a-thon held May 19th and 20th. He thanked everyone who had helped out the 2 days. There were 248 racers from 5 states. He also had a thank you from the race committee. Next year the dates are May 17-18th.

Members were asked to help at another race being held in Kewaunee on Just 14th at 9:30. Two races will be held at the same time. Anyone who can help should contact James (KB9GOY). This would be country roads mostly.

Fred also reminded us of the Leukemia ride coming up. As in the past, riders will be coming up from Milwaukee and staying overnight at the UW campus. Then starting out early Sunday morning on their way to Door County. It will be held Just 21st and

22nd. Steve (N9PBL) is coordinating this. Please contact him if you can help.

Travis (KB9YRC) was applauded for the fine job he did running the weather net a few days earlier. Thank you Travis for all your efforts.

The committee for the Hamfest is working on next years event. Places are being contacted for possible use. More on this in coming meetings. One possibility is the Club BilMar.

The Lighthouse Event which was to be held later in the summer is looking like a no show. Ron (WS9X) is trying to contact the people in charge for a final answer. Hopefully we should know soon either way.

The club has been trying to get more exposure for the club. One way would be to have a small display at the local county fair. Theresa (KB9KXE) checked with fair officials about putting up a small display outside in their equipment booth. Permission was given. So think about helping out manning the display at the fair. Some discussion was held about which days would work out the best for all involved.

Fred reported that 4 members of the club will have keys for the club shack. If you would need to get in, you can contact one of the following: Fred (W6BSF), Red (N9GHE), Roger (W9NPX), or Dick (N9QFY).

A small party was given for Chuck (W9BZU) on the 75th anniversary of his being a ham operator. He was given a plaque for his many years of service. All those who attended were treated to a pizza party. Thank you to all who took time from their busy day to honor Chuck.

Congratulations to Chuck from the entire club on your accomplishment. Mary (KB9GOY) brought some pictures of the party which will be put into our club scrapbook.

The attendance drawing was held; Steve (KB9GPN) was drawn but not in attendance. The pot goes to 17.00.

Our next monthly meeting will be held on July 11th at the club shack off Waldo Blvd.

The meeting was adjourned at 8:41 with motions made by Mary (KB9GOY) and Red (N9GHE).

Submitted for approval,  
Theresa Hartlaub (KB9KXE)  
Secretary

### Member Attendance

Roger W9NPX	Rahlf N9AWG
Travis KB9YRC	Jeff N9XEV
Fred W6BSF	Bob KB9INK
Ken K9HAG	Red N9GHE
Clancy K9WIX	Dan N9FVZ
Lyle WB9VTM	Gene WB9DQD
Oran N9VIA	Don KB9NTL
Gene KB9KXF	Chris KB9VLS
Mary KB9GOY	John NZ9Z
Dick N9QFY	James KB9GOX
Chuck N9WUN	Julie N9PZX
Vic WB9VYO	Theresa KB9KXE

### Something interesting happening?

Maybe our readers would like to read about it. Write it up and send to the editor. The address is on page 2.



## Scholarship winners announced by Foundation for Amateur Radio

The Foundation for Amateur Radio, a non-profit 501(c)(3) organization has announced the winners of the 65 scholarships it administers. These awards are for the academic year 2001-2002. Three Wisconsin clubs are among the many who provide scholarships.

### WARAC Memorial Scholarships

Sponsored by the West Allis Radio  
Amateur Club

Two at \$1000 each

Andrew A. Knitt, KB9JOZ  
Rhineland, WI

Andrew J. Wagner, KB9TAC  
Menomonie, WI

### South Milwaukee Amateur Radio Club Scholarships

Two at \$1000 each

Michael R. Placek, KB9SCH

Oak Creek, WI

Michael M. Imrick, AA9ZT  
Mason, WI

### Ozaukee Radio Club Scholarship

One at \$1000

Jeffrey D. Koch, N9XMN  
Wisconsin Rapids, WI

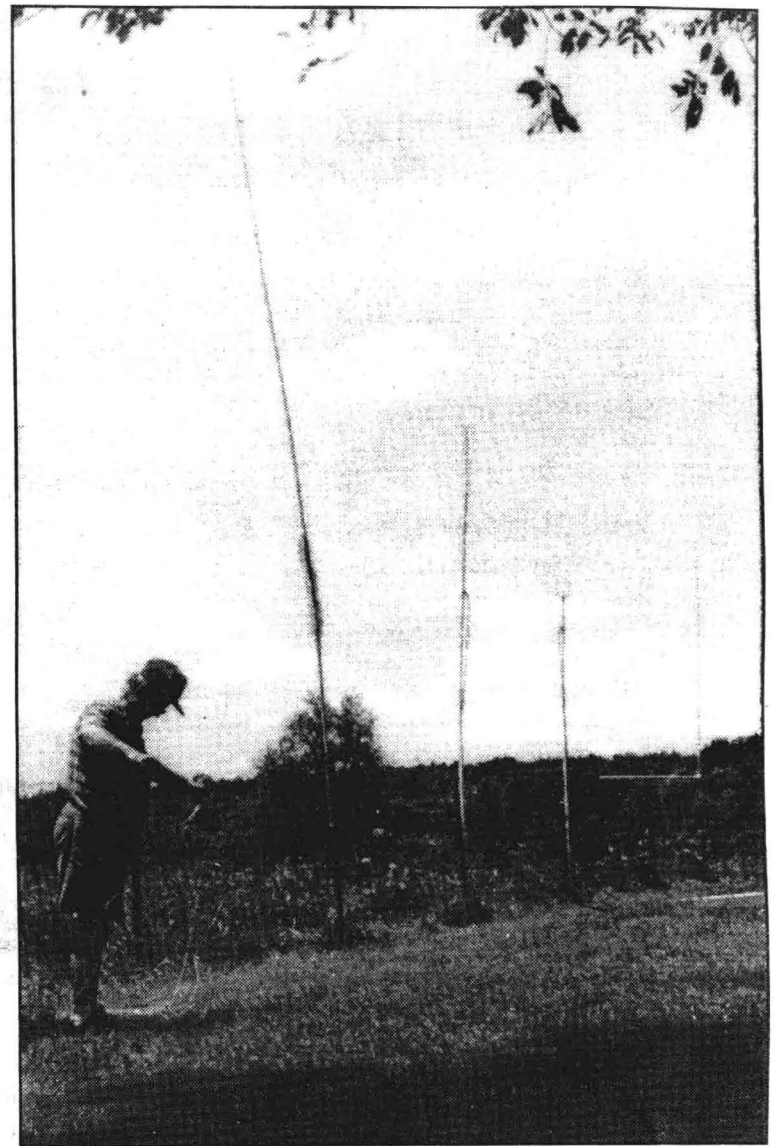
In addition, Phillip A. Bogacki, KB9-KEE, Milwaukee, WI, won one of two Rose Ellen Bills Memorial Scholarships. Those are \$2000 each.

The 65 total scholarships were open to all licensed radio amateurs meeting the qualification and residence requirements of the various sponsors.

The Foundation is a non-profit organization incorporated in the District of Columbia, and is devoted exclusively to the scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.

The announcement of the year 2002 awards will appear in the January or February issues of the major Amateur Radio publications and selected radio club newsletters.

## Securing the antennas



Don Evenson, K9JYX, helps secure the VHF and UHF antennas to a post at the Yellow Thunder Amateur Radio Club's FD site. The second antenna from the left is the two-meter eggbeater which was used to work NA1SS on the International Space Station.

K9ZZ photo

## Colorado students interview astronaut via ham radio

Eight students from several schools in the Boulder, Colorado, area used ham radio to ask US astronaut Jim Voss about his experiences and activities aboard the International Space Station. The June 21 contact was arranged through the Amateur Radio on the International Space Station (ARISS) program.

Participants ranged from elementary school age through college, including one questioner who attends the University of Colorado in Boulder, Voss' alma mater. The students gathered at the home station of Bill McCaa, KØRZ, in Boulder for the linkup, which lasted just over 10 minutes.

Students' curiosity ran the gamut from scientific to spiritual. One high schooler asked about how the lack of gravity affected Voss' sensation of balance.

"Actually, the fluids of your inner ear do change a little bit, but after a day or so, you're used to it -- your eyes take over and you don't really feel like you're off balance or anything like that," Voss replied. Voss said the body adapts very quickly to space, "and you feel like you're right at home, whether you're upside down or right side up."

Another youngster asked Voss if being aboard the International Space Station made him "feel any closer to any heavenly body."

Voss pointed out that the ISS was only a couple of hundred miles or so above Earth and that the view of the heavens wasn't that much different than from the ground. "I just feel further away from Earth," he said.

Voss told the students that he and his crewmates still can see the stars and planets, but they don't twinkle as they do on Earth because of the lack of atmosphere. More spectacular, he said, is the view of Earth from the ISS. "It is truly beautiful!" Voss exclaimed. Seeing Earth from space for the first time was "a very emotional experience," he said.

He said the crew has been working to get the Canadian-built manipulator arm working properly and would be involved next month in the installation of a module that will serve as a launch platform for space walks.

Voss used the NA1SS call sign for the contact. Each student got to ask two questions. Questioners included at least two hams, 17-year-old Brian Bowman, KCØFSO, and 12-year-old Emily Arthur, KCØGIA. Voss said he hoped to make it back to Boulder for an in-person visit after he returns to Earth. The Expedition 2 crew of Voss, Susan Helms, KC7NHZ, and Yuri Usachev, RW3-FU, is scheduled to leave the ISS in mid-August.

The ARRL Letter

## "Mister Guitar," Chet Atkins, W4CGP, SK

Guitar picker, music legend and Amateur Radio operator Chester B. "Chet" Atkins, W4CGP, of Nashville, Tennessee, died June 30. He was 77.

Known as "Mister Guitar," Atkins hailed from East Tennessee and began his musical career playing fiddle, but later earned his reputation as a guitarist. He went on to become the most-recorded solo instrumental musician in history.

Formerly WA4CZD, Atkins, a General licensee, obtained the vanity call sign

W4CGP in 1998--the suffix standing for "certified guitar picker." He was an ARRL member. He won 14 Grammy awards during his career and was elevated to the Country Music Hall of Fame in 1973. He was presented with a Lifetime Achievement Award in 1993 by the National Academy of Recording Arts and Sciences in part to recognize his guitar-picking technique as well as his wide influence on music. He had more than 100 albums to his credit.

- ARRL



## SHEBOYGAN County Amateur Radio Club

Sky Borgenhagen, N9XRU, Secretary  
N6466 Plank Circle • Glenbeulah WI 53023

2-Meter Repeater: 147.06 Output

The June meeting was called to order by club President Steve, N9TRK, at 7:00 p.m. There were seven members present. The SCARC meetings are held every second Tuesday of the month in the Red Cross building at 2032 Erie Ave. in Sheboygan.

Field Day agenda was finalized. We will be operating 5A with the new club call sign, KB9ZUO. A big thank you to Steve, AA9SJ for doing all the leg work on the club call sign!

Club officer elections were held and the results were as follows:

President:	Mike - K9SJ
Secretary:	Sky - N9XRU
Treasurer:	Steve - N9TRK
Board Member:	Steve - AA9SJ
Board Member:	Larry - WB9FXQ
Board Member:	Jeff - KB9VSA

Finishing touches were done on the radio room wall.

The meeting adjourned at 9 p.m.

### Net Schedule

The SCARC 2 Meter net meets Monday nights at 8:00 p.m. on 147.060, PL107.2+. This is a fun net and all are welcome to join us. Any members willing to take net control for one or more nights should contact Steve, N9TRK.

### Saturday Morning Breakfasts

The Saturday morning Sheboygan hams breakfasts are held in the following venues at 8 a.m.:

1st Saturday - Jumes in Sheboygan

2nd Saturday - Family Restaurant in Cleveland

3rd Saturday - Plymouth Family Restaurant, Mill Street in Plymouth

4th Saturday - Park View Restaurant, County PP Sheboygan Falls

5th Saturday - Hill Farm Restaurant, Cty V and OK

Hams, spouses, hangers on and such are welcome.

### Email List

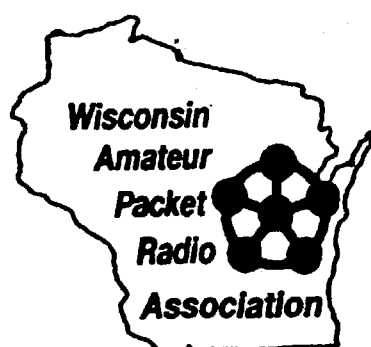
If you use e-mail, consider signing up on the Sheboygan Hams mailing list. Simply submit your e-mail address to: <julian@bongo.tele.com>. All e-mail sent to <shebham@tele.com> will be forwarded to all listed subscribers. Thanks again, N6ARE, for providing this wonderful mail server for SCARC use.

### Club Postal Mailing Address

SCARC, PO Box 1282, Sheboygan, WI 53081-1282

Respectfully Submitted:  
Sky Borgenhagen, N9XRU

Thank you for reading  
Badger State Smoke Signals!



# THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association

Larry Shields, WD9ESU, Treasurer, W8929 Highway K, Lodi, WI 53555

Andy Nemec, KB9ALN, Editor · 453 Cottage Grove Avenue · Green Bay, WI 54304 · e-mail: kb9aln@juno.com

## WAPR News - July, 2001

by Andy Nemec, KB9ALN

Hello and Happy July 4th to everyone. I hope you have a safe and happy holiday.

As many of you may vividly remember, the middle of June was not kind to us here in Wisconsin, at least with regard to the weather. Severe thunderstorms with high winds, and even a tornado or two affected many people in Wisconsin. Many Amateurs found themselves assisting various emergency response organizations after taking part in weather reporting nets. For the most part, the Wisconsin packet network made it through OK. There were a couple of scattered outages that were directly attributable to the storms, and nodestacks that had emergency power were using it in a few cases.

Al, KB9BYQ in Appleton found himself with a wet basement and no power on the night of the June 11th storms that turned Outagamie and Winnebago counties (among others) into declared disaster areas. His node stack kept right on ticking, though. It wasn't until the early morning hours of the 13th that his commercial power returned. His BBS was down for the duration, however. Folks in Waupaca were not so lucky - their node stack was without power for a day or two as well.

We were lucky that there were no more problems than just power - high winds made this a particularly dangerous event. Packet is another one of our many communications resources we use to support emergency management agencies. It can be especially valuable to us in maintaining contact with the State Department of Emergency Management when voice channels may not be available, may be crowded with other disaster-related activity, or just not suitable for the information we're trying to pass.

In addition to the "regular" packet network, Wisconsin has its own ARES node network specially provided to carry out Emergency and Drill packet traffic. It is on the frequency of 145.610 MHz, 1200 bps (same speed as the regular VHF packet you probably normally use). This is a state-wide coordinated frequency that has long been designated as such. I recently received an E-Mail reminder concerning the use of this frequency, and this would be a good time to share it with you. It comes from Len Kryer, N9QIP who is the state ARES packet coordinator. Here's the full text of his note:

Just a heads up to all those who are running a packet station on 145.610 Mhz. Each station that operates on this frequency shall be for Emergency purposes only!

I am seeing many stations with mail boxes and invites to drop each other a line using this frequency. This emergency network relies on keeping the frequency clear of general BBS type traffic and personal mailbox traffic. If you have not done so, please limit your personal stations to ID only with no other text following your ID beacon. Do NOT use a Digi to relay your station beacon anywhere on this network. In a real emergency, those beacons, digis, and IDs from any stations other than ARES/RACES tend to clog the network and take valuable time away from emergency traffic.

If you wish to use your station for assisting the emergency network on a full time basis, please turn off the digi function and enable the node operation on your TNC instead.

Failure to help keep traffic to a minimum will simply render the network useless.

Len Kryer, N9QIP Wisconsin Emergency Packet Coordinator

Len's note was forwarded to me by a couple of different people. Along with his note, I saw a request from ARRL Official Observer and Section Technical Special-

ist Richard Polivka, N6NKO. Here's his request:

Along with the request to limit the traffic on 145.610 MHz, I would like to make the following request to all.

Could you please email me the location, callsign and function of any equipment that anyone may have on 145.610 MHz? I am trying to come up with a map of 145.61 stations and nodes for Wisconsin. This map will be regularly updated and released. Having a map of the 145.61 system will be of great use in getting messages through in a time of need.

Thank you.

73, Richard E. Polivka, N6NKO n6nko@execpc.com

I hope that if you have any equipment on the state ARES frequency, you operate it in the spirit of its intended use, and let Rich know about it. After all, you never know if, when or where a disaster will strike. Having this frequency clear for emergency communications may well help you if disaster ever affects your community.

That's all I have for this month. As always, feel free to send me your packet news at one of the addresses at the top of this page. Until next time, 73 from Andy.

## Net/Rom Node Information for the Sysop - Part Four

by Andy Nemec, KB9ALN

This is part 4 of a series designed to help node Sysops learn more about the popular TheNET X-1J series of nodes. We'll skip over the more common user commands and devote our discussion to commands used by the Sysop. This month, we look at ALIAS and ARP.

## ALIAS

Most every node has an alias - a name other than its call-sign - that it is known by. TheNet X-1J revision 4 nodes can have the standard network node alias plus 3 other aliases. These are BBSALIAS, DXCALIAS, and HOSTALIAS.

The BBSALIAS is simply another name that the node is known by for BBS purposes. If a station attempts to connect to the BBSALIAS, the node will respond and carry out the BBS connect command (automatically connect to a specified BBS). In the case of DXCALIAS, the node connects the user to a DX Cluster. HOSTALIAS will connect the user to a local TCP/IP "Host" computer. You don't have to set these other aliases if you don't have these services in your area. Of course, you would want to set the network node alias.

The command syntax is the same for all commands involving an ALIAS. Naturally, you need to be connected to the node as a sysop in order to use these commands. Here's a summary:

## ALIAS \*

Clears the alias entry. To enter a new alias, type:

ALIAS your\_alias\_name\_here

Note that there are certain checks the node makes to see if your proposed alias is permitted under its "rules". Changing aliases without careful consideration of the problems it may cause others is discouraged. Most commonly, the alias is "burned" into the node's EPROM so you probably would only re-enter a node alias if something really bad happened, or it was changed.

## WISCONSIN AMATEUR PACKET RADIO MEMBERSHIP APPLICATION

PLEASE PRINT:

NAME: \_\_\_\_\_ CALL: \_\_\_\_\_ HOME PHONE: (\_\_\_\_) \_\_\_\_\_

ADDRESS: \_\_\_\_\_ CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

HOME BBS: \_\_\_\_\_ FREQ: \_\_\_\_\_ (Listing your home BBS is important)

MY PACKET STATION OPERATES: \_\_\_\_\_ DAY \_\_\_\_\_ NIGHT \_\_\_\_\_ 24 HOURS

I OPERATE A: \_\_\_\_\_ DIGIPEATER WITH AN ALIAS OF: \_\_\_\_\_

\_\_\_\_\_ FULL SERVICE BBS

PRIMARY PACKET INTERST/EXPERTISE IS: \_\_\_\_\_

\_\_\_\_\_ YES: I want to receive Badger State Smoke Signals and I understand that part of my dues will go to pay the subscription. Cost \$20.00.

\_\_\_\_\_ NO: I do not wish to receive Badger State Smoke signals as part of WAPR membership. Cost \$15.00.

Complete and return this form with your check or money order — \$15.00 for membership only or \$20.00 for membership and Badger State Smoke Signals, made payable to W.A.P.R. to:

Larry Shields, WD9ESU, Treasurer,  
W8929 Highway K  
Lodi, WI 53555



## ARP

Arp is a command closely related to other TCP/IP commands for TheNet X-1J. One of the most recognizable feature of these nodes is the ability to act as a TCP/IP router. That is, it can correctly and automatically route TCP/IP packets (called datagrams) to their intended destination.

What is "ARP"? Arp means "Address Resolution Protocol". In the world of TCP/IP, computers are known by their names (called "hostnames") as well as a number (called an IP address). In the Amateur Radio World, Call-signs are used to differentiate stations. ARP bridges this gap by associating an IP address to a Call-Sign.

ARP allows the node to properly direct TCP/IP connections toward a particular call-sign-equipped radio transmitter and TNC, eventually reaching the computer.

The Node Sysop maintains a small database in the node (called an "ARP Table") that it uses to remember which call-sign goes with which IP address. ARP, when used as a node command, is used to manipulate this database.

Sound confusing? It's really pretty simple when you take it step-by-step. For now, let's just assume that WX9APR has an IP address of 44.92.232.5. All we have to do is to tell this to the node.

Let's put WX9APR into a node's ARP Table. We'd use the command form of:

ARP 44.92.232.5 + P AX25 WX9APR DG

The First number is the IP address belonging to WX9APR. The + indicates you want to add it to the list. The P indicates that you want the node to Publish this arp entry - tell it to other computers that are listening on the frequency. AX25 tells the node to use the AX.25 protocol set (the Amateur Packet Standard) to talk to WX9APR, which is the call-sign used to connect. The Last entry, DG, means to use the "Datagram" mode. The Datagram mode uses end-to-end packet acknowledgement.

There is one other choice, VC. This means that the connection is to be a "Virtual Circuit" type. These connections are hop-to-hop acknowledged. There are special uses for both. The general rule seems to be to use DG on reliable paths, and VC when the path is error-prone.

This is fine, we have WX9APR on the list. What happens when he decides to change call-signs, and we have to remove the old one from the list? That one is easy enough:

ARP 44.92.232.5 - AX25

> From there, you can add that address on a different call-sign using the ARP + variant of the command.

Any incorrect syntax using the ARP command can make things interesting. One common mistake is not entering enough information when dropping a station from the list. Forgetting to enter the IP Address, for example, will turn ARP off entirely. Turning it back on is simple:

ARP +

Will do it. ARP - by itself, as you have probably guessed, totally disables ARP.

That's all for this part. Two of the final installments in this series will summarize what it takes to get the TCP/IP functions operating on TheNet X-1JR4 nodes. Next month, we'll continue our alphabetical exploration of the Sysop commands for these nodes. Until then, 73 from Andy.

## THE TEST POINT

(continued from page 3)

### MEDFORD, WI (ARRL/VEC)-UPDATE NEEDED

Take Ogden St. west off of Hwy. 13 to the courthouse. Park on the street or in the parking lot on the south side of the courthouse. Use one of the two entrances there. Watch for the signs when you get into the building. Talk-in on the 147.15 (+600 KHz, 114.8 PL) repeater. Walk-ins welcome, but if you know you'll be attending, please let us know. Contact: Tom Hrdina, N9GEN, 2373 Willow Ave., Medford, WI 54451. (715) 748-4054. E-mail: Mike, N9GHZ, muzikman@pcpros.net.



## Yellow Thunder Amateur Radio Club

WB9FDZ (Original Club Call)  
K9ODK (Robert L. Prine Memorial Call)

Club net: Sundays 8:00 p.m. on 147.315

Raymond J. Matlosz, N9MLZ, Secretary  
450 W. 2nd St., Reedsburg, WI 53959-1500



The June 5, 2001 meeting of the Yellow Thunder Amateur Radio club was called to order at 7:42 p.m. by the club president Steve Schulze, N9UDO.

Minutes for the May 1, 2001 meeting were approved as published in BSSS. Bill Klinkner, N9KXX gave the treasurers report. Bill also reported two new members, Brian Smith KG9OG Portage and Steven Hayes, KB9LMZ, Briggsville. Club now has thirty seven members.

OLD BUSINESS: Bill Hommel, KA9QFJ and Thomas Harrison, N9PQJ participated in Circus Heritage Day held in May. The club received a blue ribbon from the Boy Scouts for the participation. It was reported that it was fire that got the attention of the scouts in the area though it was the adults who seemed most interested in ham radio. Next Zilch meeting will be September 23, 2001. About a dozen people attended the presentation by Stan Kaplan, Ph.D. at the May 17th meeting of SCARES. Other old business discussed was a balloon flight and a memorial for silent key Bob King.

NEW BUSINESS: Preparations were made for Field day June 23-24 in Owen Park (Columbia County). Bring own meat to grill (grills will be furnished). Club hamfest was approved by ARRL. Steve Schulz's Eggbeater antenna was the center of

attention during the meeting, although Patrick Klinkner thought a few modifications were indicated and made same.

Meeting adjourned at 9:15 p.m.

NEXT MEETING: There will be NO meeting July 3, 2001. Instead a club get together (picnic and antenna site tour) will be held July 7th. August meeting will be August 7, 2001 at 7:30 p.m. at the Baraboo Civic Center.

Respectfully submitted:

Raymond J Matlosz, N9MLZ, Club Secretary

The following members and guests were present:

Duane Grotophorst	N9DG	North Free-
David Spearing	KB9CSW	Portage
Raymond Matlosz	N9MLZ	Reedsburg
Steve Schulze	N9UDO	Baraboo
Tom Harrison	N9PQJ	Reedsburg
Bob Dischler	KB9UOJ	Prairie du Sac
Bill Hommel	KA9QFJ	Baraboo
Bill Klinkner	N9KXX	Sauk City
Patrick Klinkner		Sauk City
Peter Sweeney	WD9JIB	Reedsburg
Leonard Wagner	N9XJG	Baraboo

### HUDSON, WI (ARRL/VEC)

Sponsor: St. Croix Valley AR Testing Col. Time: Call for time and walk-in info, Contact: Gregory Miller (715)386-9857 Location: St. Croix County Emergency, Government Center by jail, Carmichael

ARRL Web site)

### HAMFEST EXAMS

Cedarburg WI - ORC Hamfest  
Green Bay WI - ARES Hamfest  
Hayward WI - Hayward Hamfest  
Kaukauna WI - Swapfest  
Manitowoc WI - Lakeshore Hamfest  
Oak Creek WI - SMARC Hamfest  
Rhineland WI - NWARC Swapfest  
Rockford IL - RARC Hamfest  
Rothschild WI - WVRA Hamfest  
South Milwaukee, WI - SMARC Hamfest  
Stevens Point, WI - CWRA Swapfest  
Waukesha WI - KMRA Swapfest  
Waukesha WI - Midwinter Swapfest  
Dubuque IA - Hamfest

See the Swapfest page for additional information and contact persons.

### IN THE NEIGHBORHOOD

#### DUBUQUE, IOWA

Dubuque Hamfest. Contact: Carl Clark, N0KAX, 2145 Delicia Drive, Dubuque, IA 52001. (319) 557-9149.

#### ROCKFORD/LOVES PARK, IL

Third Saturday of every month. Northern Illinois Volunteer Examiners (W5YI VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. 9:00 a.m. to noon. No new applicants after 11:00 a.m. Walkins welcome. Contact: Rusty Cordell, WB9QYV, 1823 Hulin St., Rockford, IL 61102-2619. (815) 968-0080. e-mail WB9QYV@aol.com

### MINNESOTA TEST INFORMATION

From The Ground Wave, Saint Paul Radio Club

#### Saint Paul Radio Club (SPRC)

TESTING: First Saturday of the month, 8:30 a.m. Contact: Ed VanCleave, W0VC, (612) 636-0108 Test Site: St. Paul Technical College 235 Marshall

Ave. St Paul, MN. <http://www.qsl.net/sprc/index.html>

### Anoka Amateur Radio Club (AARC)

TESTING: Second Saturday of the month, 9 a.

Test Site: Blaine City Hall 9150 Central Ave, NE, Blaine, MN  
Bloomington Office of Emergency Management

### Bloomington Amateur Radio Club (BARC)

TESTING: Fourth Saturday of the month, 9 a.m. Contact: Dan Royer, KE0OR (612) 888-9756 Test Site: Fire Station No. 1 94th St. & Nicollet Avenue S. Bloomington, MN

### Valley Amateur Radio Club (VARC)

TESTING: Second Thursday of the month, 7 p.m. Contact: Bill Martin, AI0D (612) 432-0438 Test Site: Hayes Community Center 14601 Hayes Road Apple Valley, MN

### W5YI Group

TESTING: Third Tuesday of the month, 6:30 p.m. Contact: Dave Ranney, N0AXL (612) 542-2553 Test Site: Eden Prairie Library 479 Eden Prairie Drive Eden Prairie, MN

### SE Metro Area Radio Club (SEMARC)

TESTING: Third Saturday of the month, 9 a.m. Contact: Dave Harrell, K0BTE (612) 459-8678 Test Site: Cottage Grove fire Station 8641 80th ST., S Cottage Grove, MN.

The times and places listed above are the usual time and place for each VE team. Occasionally, sessions are canceled or changed. It is a good idea to call ahead to confirm the test time and place.

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules. Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to [kebnetter@palacenet.net](mailto:kebnetter@palacenet.net).

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2001 ♦ July 7

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**Shepard Avenue • Oak Creek, WI**

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P. O. Box 102 South Milwaukee, WI 53172

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[www.ns9rc.org](http://www.ns9rc.org)

North Shore Radio Club / Box 1066 Highland Park, IL / 60035

Eau Claire Amateur Radio Club

**HAMFEST 2001**

**Saturday, June 9, 2001**

For Information Contact:

Jim Staatz KG9RA at 715-838-9108  
P.O. Box 1867 Eau Claire, WI 54702-1867

<http://www.ecarc.org> [w9eau@ecarc.org](mailto:w9eau@ecarc.org)

Ozaukee Radio Club  
**23RD ANNUAL RADIO AND  
COMPUTER SWAPFEST**  
**Saturday, May 5, 2001**

8 a.m. to 1 p.m. • Circle B Recreation Center  
Intersection of Highway 60 and County I  
Exams by Badger Examiners, c/o Gary Sharbuno,  
5119 W. Willow Rd., Brown Deer, WI 53222  
Swapfest sponsored by the Ozaukee Radio Club  
W55 N865 Cedar Ridge Drive • Cedarburg, WI 53012

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Sponsored by The Yellow Thunder Amateur Radio Club

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Steve Schulze, N9UDO  
(608)356-2313  
<http://www.qsl.net/ytarc/hamfest.htm>

Bill Klinkner, N9KXX  
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